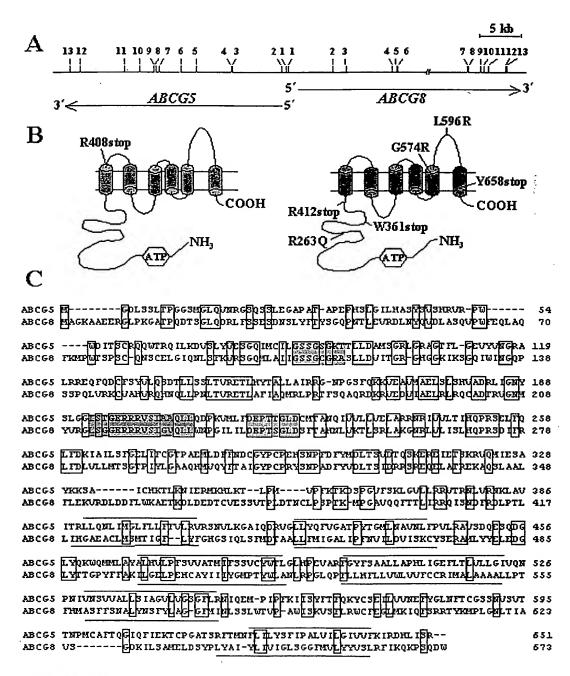
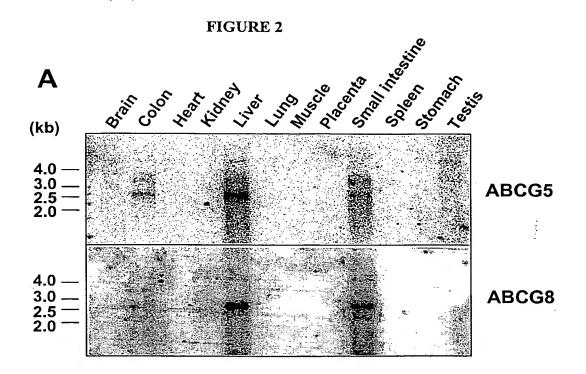
Atty. Docket No.: 18781-007320
Applicant: Helen H. Hobbs et al.
CG5 AND ABCG8: COMPOSITIONS AND METHODS
Sheet 1 of 4

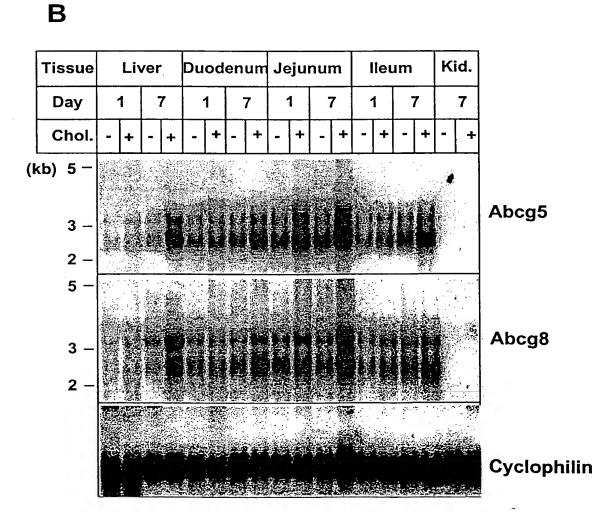
FIGURE 1

Tit



walker:avhotifi walker:b}hotifi strontorid=lotic ABCGS Putative Transmembrane Domain ABCG8 Putative Transmembrane Domain





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FIGURE 3

A. ABCG8 exon 2 (reverse strand) thru ABCG5 exon 2 (forward strand)

 $\texttt{ac}\underline{\textbf{CTGGTAGGTGAGATCTCTGACCTCCAGAGTGTTGGACTGACCACTGTAGGTGAAGTACAGACTGTTGTCACTTTCCGA}$ $\underline{\textbf{GGAGAACAAGCTGTCCTGGAGGCC}} \textbf{ctgctgggagacatgtagt} \textbf{caatgttaagggtcacatgcagagagcgccttcccc}$ tgcttttaatgtttgagcatcaccccagctccattctctgatctttactaaaaaataataatagcaatggcttaaactat ggtcaccccgctgtgcttcagaacactagaatttatgtctcccatctcattttgatgcccaggatctgactgccaaccat gtgtgtgtgtgtgtgtgtgtgtggggaatcaaatccatagcatcaaatatactaggccaatcatgatactgacagaaccat agcaacacatccggggtcccctggggtttcttgttttcaaatcaattatctttaggagagatcttagttacttgcatgggc taqqaatttgttcctagacacttgtactgatacaaagtttcttccattqqcttcaggagtggaggggctactgagggagg CCATTTTAAAATATTTTCCTTGGCACCCAGGAAGGATTCCTGAGGTTTTGACAAATTCTCTCTATTTTTCAAACCCTTAA ATATCTATTCGGCTGACACATTAATCAGCACGACTGTCAGAACATCATTTGAATCTGTGACAGGTGACACCCTAAAAAAG TGAAAGCGGGTTTATTTGTAGGTAACTAGTGTGGCTCCTGCTGGGCTACAATGTAACGTCTCCTTGTATTAACTTCTGGT TACATTCCTGAGTCAGAagcacagacacatgggaaaatccagagggcacaaaaagggagaaatgtgcagaaaacagtggt gectggtggggacatatatggtaagtetttggeccaaggeacataeetggeeetetgttgaeeeetgeagaeaeeatete atctgcctctgcttagagtccaggctttcctatccctgtctgcagtgcgaggagctgtagaccatgggtcctggccct cqqtctctgtgaagacctgactcgaatatgagtagaaagacggtqtggccgctatgtgagttctttgtagagtgagatgc gggcatatcagtgtcattgtctccccccccccaagccctgcagttgtcagtggcgggccatcacaagggcacctacaac agtgggacctcacagaaggaacttgtaggtggcaggacctaggcacacttttgaatatagaattctgacagctcattgcc acgtagaaggagttatttccccatagacgtctgcctcatggggattctgacagcagagttgcctgttgctgtggtagtag gattggtcaatctcaggcaatcctgtctcccctagaacaggggactgaggcgtccctgttgaatgtggccatcctgttct $\tt ggtctttgtctccagaaaagtgggccgggtgtagaagctgggggaggggaggtcgtctttgctcttcccatact$ gccttctgcttcaaatcctgcccacaactcgagtcaaaggccatttatcaagcaaatgtttctccggttaatgaggaagg aggectaggagetceacttcctggccacctcgctgctctctgtccactctgcctccctaggaccataagacctgcaagcacacaattctgacgctcccaaacaagcgatcactatcacagccagtgtatttgtaaactgcctgaaaccaatgtgtagcc ${\tt aageagagcctcaactctacaaggtagcgagatgcctcaacccctccttggcatttgttcctgacacctgccctttctct}$ ctgtctctctgtctattggtctgtctgtcctgcagcttctcagcctcacacagagacctttaggcttccccctggcctt $\verb|ctctttcctcctggttctcaccaaacaatgccaaggactaacttactacataagtatggcaagcgtagcgatcctgttgt|\\$ tacctccccgctgtctcttgactaccactgagattcttggtctgacagtcacatgggtcaacgctctgtgatggaatgt ${\tt AGACTGTTCCCCTC} agac {\tt catca} acat {\tt cagg} agac {\tt agg} gccct {\tt gccgccccatttccattct} act {\tt tgaagtccagg} tgg$ $\underline{CATCCTGAAGTACAGTCCCATTCCACAGCTGGGTCTCTTCTTTGGTTTTCTCAGCCAT}\\ \texttt{gaccagtgctgtttgtgccctt}$ tgtgtggcctcccctgctgttgggctctctctgtctttgctccttagagctggggcacctgagccctcctctgtgccagc CLLTCTCCCAGCATTCCTYTCTGGCAAACACTTCCTATAAACACCGTGTGTTCTGCCTATTGTCGAGATAAGGACACT ${\tt CTGGCTAAAGGTACATCAGATAATGGCATCGTTGGCCAAattggtgaactgttatctcacgaggattccagggctgggta}$ ggatcggacagggcactcccattggctcctcagttaaagctgccctggagccggacaggccactagaaaattcacttgca tttgcttcctgctagcc<u>ATGGGTGAGCTGCCCTTTCTGAGTCCAGAGGGAGCCAGAGGGCCTCACATCAACAGAGGGTCT</u> CTGAGCTCCCTGGAGCAAGGTTCGGTCACGGGCACAGAGGCTCGGCACAGCTTAGGTGTCCTGCATGTGTCCTACAGCGT $\verb|ggttgtctgtccagcagatcagggtgaaagtggacagtctgtaacaacagtgagtcgttcctcctcctcctgcgcag$ ctcgcccaccacctgtcctgtgtagatggagaaggctcggagagtgggggtgctggggggcacaaaatggaatgaacactg ctgaaggaatgcagggttcacttcaagaagaagcagtgtgcaggtgtaccatctcccagtcagagacccagtaatcaga gcagctaatgggaggcatgctccttgggtggtggccaacttgtcattatacctccaaggacaacagagtggtacataagg ctaaaacagagttgtcaacctgtccaggggcaactggggtagggtagggctgggagcaggggtctggcaccttccaggac <u>GAAGTGGGACAGGCAAATCCTCAAAGATGTCTCCTTGTACATCGAGAGTGGCCAGATTATGTGCATCTTAGGCAGCTCAG</u> gtaagtgcctgggggggccsggggctcctgtacttctaaggcaggctctgggaggctttggctcygtctaagcacaatgtt taagaagtragtttaagttgtagagaggcagccatgcatttggcatttgaatacaatctggtgacttgtctggctgccaa tagaacctagtaccaaagtgaaatcttgaggaaaatccctggaaagagtggaaagtcctgcctaacacgtaagtgccttc tttgcttgtttgattgactgtgatgctagagagcaaacccagagccttgggcatgctcagtaaaccttctgccccagcac tgtggtgcagggaggcctaggagagctaagagcccaggtcaagttgactctgttggtcttcctgtggagttccttcgaag

FIGURE 3 (CONTINUED)

The 4 exons are underlined and the conserved regions are in uppercase. The sequence ends in intron 2 of ABCG5 and is in the following order:

ABCG8	exon 2	(reverse	strand)
ABCG8	intron 1	(reverse	strand)
ABCG8	exon 1	(reverse	strand)

gap between genes

ABCG5	exon 1	(forward	strand)	
ABCG5	intron 1	(forward	strand)	
ABCG5	exon 2	(forward	strand)	
ABCG5	intron 2	(forward	strand,	partial)

B. Sequence Between ABCG5 and ABCG8 Containing the Control Sequences

SF 1157042 v1